



U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Species Account
CONTRA COSTA WALLFLOWER
Erysimum capitatum var. *angustatum*



CLASSIFICATION: Endangered

Federal Register Notice 43:17910; April 26, 1978
http://ecos.fws.gov/docs/federal_register/fr208.pdf
(1.2 MB)

STATE LISTING STATUS AND CNPS CODE:

This species was listed as endangered by the California Department of Fish and Game in 1978, and the California Native Plant Society has placed it on List 1B (rare or endangered throughout its range).

CRITICAL HABITAT: Designated in Federal

Register notice 43:39042; August 31, 1978
[Notice not available online. See Code of Federal Regulations [section on plants](#).]



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Beatrice F. Howitt
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RECOVERY PLAN: Revised recovery plan for three endangered species endemic to Antioch Dunes, California. 1984

http://ecos.fws.gov/docs/recovery_plan/840425.pdf

Contra Costa Wallflower Spotlight Action Plan. August 27, 2009.

http://ecos.fws.gov/docs/action_plans/doc3166.pdf

5-YEAR REVIEW: Completed June 2008. No change recommended.

http://ecos.fws.gov/docs/five_year_review/doc1929.pdf (1.2 MB)



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DESCRIPTION:

Contra Costa is an erect, coarse-stemmed, biennial herb in the mustard family (Brassicaceae). Plants grow from a somewhat woody caudex (trunk-like base), which typically elongates into multiple branched stems 2 to 4 decimeters (8-32 inches) tall in mature plants. The elongated woody base distinguishes this subspecies of *E. capitatum* from related subspecies.

Lower leaves are lance-like to linear, up to 15 centimeters (6 inches) long and about 13 millimeters (half an inch) wide, with minute teeth. Leaves taper to a petiole at base.

Yellow four-petalled flowers, which bloom from March to July of the second year, resemble those of garden wallflowers. They are born laterally on unbranched stems at the top of the plant.

The petals have claws (slender stalks) and are about ½ to 1 inch long. The slender pod-like fruit (silique) is dry when ripe and is to 4 inches long.

See Hickman (1993) in General Information about California Plants, below, for a detailed description of these species.

DISTRIBUTION:

The Contra Costa wallflower is endemic to the riverine dune habitat found within and immediately adjacent to the [Antioch Dunes National Wildlife Refuge](#). . Currently, there is a single occurrence consisting of approximately 4,000 total individuals. The refuge is closed to the public. Docents lead one-hour guided tours at 10 a.m. the second Saturday of every month. Call 510-521-9624 for more information

U.S. Geological Survey 7.5 Minute Quads: Antioch North (481D) 3812117

THREATS:

At Antioch Dunes NWR, dust from the Georgia-Pacific gypsum plant adjacent to the Antioch Dunes NWR may be a threat to the listed species there. Georgia-Pacific allows access to their property for surveys, and the company has made attempts to reduce airborne gypsum dust beyond the standards for air pollution control. However, dust still enters the refuge.

Recreational use of the refuge and pedestrian traffic are no longer a significant threat due to the installation of a chain link fence. However, trespassers still illegally access the refuge and inadvertently trample rare plants. A bigger threat is from inadvertently started wildfires. On several occasions a trespasser's campfire has started wildfires.

Invasive plants are one of the primary threats because they cause habitat loss habitat. The most common invasive non-native grasses and forbs found at the refuge include rip gut brome (*Bromus diandrus*), winter vetch, (*Vicia villosa*) and star thistle (*Centaurea solstitialis*). Recently, a more aggressive eradication effort is underway, which includes removal of stabilized topsoil with a small tractor to expose the underlying sandy substrate.

Low number of populations of any organism are also threatened by extinction through a single catastrophic event, such as an abnormally violent storm, a prolonged drought or other climatic event; or from an infectious disease; or from "stochastic" demographic fluctuations.

REFERENCES FOR ADDITIONAL INFORMATION:

[General references about California plants](#)

www.fws.gov/sacramento/es/plant_spp_accts/plant_references.htm

For larger images and permission information see CalPhotos <http://calphotos.berkeley.edu/>.

Pavlik, B.M., N. Ferguson and M. Nelson. 1993. Assessing limitations on the growth of endangered plant populations. I. Experimental demography of *Erysimum capitatum* ssp. *angustatum* and *Oenothera deltoides* ssp. *howellii*. Biological Conservation 65:257-265.

Pavlik, B.M., N. Ferguson and M. Nelson. 1993. Assessing limitations on the growth of endangered plant populations. II. Seed production and seed bank dynamics of *Erysimum*

capitatum ssp. *angustatum* and *Oenothera deltoides* ssp. *howellii*. Biological Conservation 65:267-278.

Roszbach, G. B. 1958. New taxa and new combinations in the genus *Erysimum* in North America. Aliso 4:115-124.

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